

ABSTRACT OF THE DISCLOSURE

A method for manufacturing a semiconductor device in which lower cost can be realized, a wiring with favorable coverage can be formed in a contact hole having a large aspect ratio, wiring capacitance can be reduced and a multilayer wiring can be formed, can be provided. In order to obtain the semiconductor device, the following steps are required; forming a first conductive film which serves as a barrier so as to be in contact with an organic insulating film with an opening portion formed; forming a second conductive film including aluminum so as to be in contact with the first conductive film; or forming a nitride film so as to be in contact with the organic insulating film with the opening portion formed; patterning the nitride film; forming a first conductive film which serves as a barrier so as to be in contact with the nitride film; forming a second conductive film including aluminum so as to be in contact with first conductive film; and thereafter selectively performing a heat treatment under reduced pressure or in normal pressure, and flattening the second conductive film.